AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Canceled)

2. (Previously Presented) The frame assembly of claim 7, wherein the first and second arc segments are concentrically arranged such that the first and second segments define inner and outer arc segments, respectively.

3. (Currently Amended) The frame assembly of claim 7, wherein the first arc segment includes an arcuate extension slidably received in a cooperative recess of the second arc segment.

4. (Currently Amended) The frame assembly of claim 3, wherein the extension and recess are generally T-shaped, and wherein the teeth are defined on the extension.

5-6. (Canceled)

7. (Currently Amended) A frame assembly for an external fixation device for a bone having a longitudinal axis, the frame assembly comprising:

a first arc segment defining a plurality of teeth;

a second arc segment rotatably coupled to the first arc segment for controlled relative rotation about a rotation axis defined by the first and second arc segments, the first and second arc segments couplable to the bone for at least partially circumscribing the bone, such that the rotation axis is substantially parallel the longitudinal axis of the bone[[;]], wherein the first and second arc segments of the frame assembly are concentrically coupled and define an arcuate opening at the rotation axis for receiving the bone; and

a drive unit attached to the second arc segment[[s]] for rotatably driving the second arc segment relative to the first arc segment about the rotation axis, the drive unit including a worm gear meshingly engaging the plurality of teeth.

8. (Original) The frame assembly of claim 7, wherein the plurality of teeth are defined on an outer perimeter of the first arc segment.

9. (Original) The frame assembly of claim 8, wherein the worm gear is disposed in a peripheral groove defined by the second arc segment.

10. (Original) The frame assembly of claim 9, wherein the worm gear includes a threaded portion partially protruding through an opening of the second arc segment to engage the plurality of teeth.

11. (Previously Presented) The frame assembly of claim 7, wherein the drive unit includes a cover secured to the second arc segment.

12. (Previously Presented) The frame assembly of claim 7, wherein each of the first and second arc segments define closed circles.

13. (Previously Presented) The frame assembly of claim 7, wherein the second arc segment is generally I-shaped.

14. (Previously Presented) The frame assembly of claim 7, wherein the first arc segment includes a plurality of apertures for interconnection with the external fixation device.

15. (Canceled)

16. (Previously Presented) The method of claim 18, wherein rotating the first arc segment relative to the second arc segment includes rotating the first arc segment relative to the second arc segment within a plane generally perpendicular to the longitudinal axis.

17. (Previously Presented) The method of claim 18, wherein the first arc segment includes a first radius of curvature having a center of curvature and wherein coupling the frame assembly to the bone includes positioning the center of curvature substantially along the longitudinal axis of the bone.

18. (Previously Presented) A method of correcting a rotational deformity or malunion of a bone having a longitudinal axis and first and second bone portions, the method comprising:

providing an external fixation device including a frame assembly with a first arc segment coupled to a second arc segment for relative rotation about a rotation axis;

coupling the frame assembly to the bone such that the first and second arc segments at least partially circumscribe the bone, and the bone extends substantially along the rotation axis;

rotating the first arc segment relative to the second arc segment about the longitudinal axis of the bone;

controlling rotation of the first arc segment relative to the second arc segment with a worm gear mounted on the second arc segment and meshingly engaging a plurality of teeth extending from the first arc segment; and

controlling rotation of the first bone portion relative to the second bone portion about the longitudinal axis of the bone.

19. (Currently Amended) The method of claim 18, wherein the first and second arc segments are concentric and the first arc segment includes an arcuate extension received in a cooperating recess of the second arc segment.

20. (Canceled)

21. (Currently Amended) A method of correcting a rotational deformity or malunion of a bone having a longitudinal axis, the method comprising:

concentrically coupling an arcuate extension of a first arc segment to an arcuate recess of a second arc segment for rotation about a rotation axis;

circumscribing at least partially the bone with the first and second arc segments such that the rotation axis is substantially coincident with the longitudinal axis of the bone;

attaching the first and second arc segments to the bone;

controllably rotating the first arc segment relative to the second arc segment about the rotation axis;

actuating a worm gear, wherein the worm gear is connected to the second arc segment and is meshingly engaged with a plurality of teeth extending from the first arc segment; and

rotating a first portion of the bone relative to a second portion of the bone about the longitudinal axis of the bone.

22. (Previously Presented) The frame assembly of claim 7, wherein the rotation axis is substantially coincident with the longitudinal axis of the bone.

23. (New) A frame assembly for an external fixation device for a bone having a longitudinal axis, the frame assembly comprising:

a first arc segment having a U-shaped portion and a T-shaped arcuate extension extending sideways from the U-shaped portion, the extension defining a plurality of teeth;

a second arc segment defining a T-shaped arcuate recess receiving the arcuate extension, the second arc segment rotatably coupled to the first arc segment for controlled relative rotation about a rotation axis defined by the first and second arc segments, the first and second arc segments couplable to the bone for at least partially circumscribing the bone, such that the rotation axis is substantially parallel the longitudinal axis of the bone wherein the first and second arc segments of the frame assembly are concentrically coupled and define an arcuate opening at the rotation axis for receiving the bone; and

a drive unit attached to the second arc segment for rotatably driving the second arc segment relative to the first arc segment about the rotation axis, the drive unit including a worm gear meshingly engaging the plurality of teeth, the worm gear received in an outer peripheral groove of the second arc segment.